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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,250	11/15/2000	Christian Kroos	49657-850	8730

7590 10/20/2004  
McDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER

PATEL, SHEFALI D

ART UNIT PAPER NUMBER

2621

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/712,250

Applicant(s)

KROOS ET AL.

Examiner

Shefali D Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 9-17 and 26-28 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 18-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment was received on June 23, 2004.
2. Claims 9-17 and 26-28 are withdrawn from considerations.

### ***Response to Arguments***

1. Applicant's arguments, see remarks on pages 18-24, filed on June 14, 2004, with respect to claims 1-2, 18-19 under 35 U.S.C. 102(e) and claims 3-4, 20-21, 23, and 25 under 35 U.S.C. 103(a) have been fully considered and are persuasive. The rejection of claims 1-4, 18-21, 23, and 25 has been withdrawn.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 18-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A "signal embodied in a carrier wave" as disclosed in claim 18 line 1 is non-statutory subject matter under 101 because it is an abstract idea or because it does not fit within any of the statutory classes. A signal in a carrier wave per se, whether an abstract arrangement of information or a physical manifestation of information, does not produce a "useful, concrete and tangible result" until it is coupled with physical structure. A signal is a kind of subject matter, which has no tangible structure.

NOTE: In PTO Examination Guidelines for Computer-Related Inventions, 1184 Off. Gaz. Pat. & Trademark Office 87 (march 26, 1996), it was published that a "signal" could be

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patentable (emphasis added by the examiner) but in Feb. 13, 2003 after a decision on appeal, the opinions were changed.

Claims 19-25 depend from claim 18 and are rejected for the same reasons.

***Allowable Subject Matter***

4. Claims 1-8 are allowed.

5. The instant invention defines a method of measuring the surface motion of each portion of an object surface, such as a human face, from a sequence of unit images of the object including first and second unit images as disclosed in claim 1. The claimed invention distinguishes over the prior art by the manner in which the method discloses determining a plurality of measurement points in an image of said object of a first unit image, determining the points in said object image of said second unit image, corresponding to the measurement points of said first unit image, and repeating, starting from a level immediately upper than the lowest level to the highest level. The claimed combination allows for improving a method of measuring the surface motion of each portion of an object surface.

Measuring the surface motion is conventional. However, the prior art of record fails to teach plurality of measurement points having hierarchical structure of a plurality of levels, with the higher level layer including measurement points larger in number of than the lower level layer, and determining the points in said object image of said second unit image, corresponding to the measurement points of said first unit image of the lowest level of the hierarchical structure of said plurality of levels; and repeating, starting from a level immediately upper than the lowest level to the highest level, the determination of the points corresponding to the measurement points of the first unit image at each level in the image of said object of said second unit image,

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based on the points corresponding to said measurement points of said first unit image at an immediately lower level of each level in the image of said object of said second unit image. These elements in combination with all of the other elements of the claims are not taught or fairly suggested in the prior art of record. The dependent claims 2-8 are allowed for the same reasons.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D Patel whose telephone number is 703-306-4182. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**DANIEL MIRIAM**  
**PRIMARY EXAMINER**  
October 8, 2004

Shefali D Patel  
Examiner  
Art Unit 2621

